AMENDMENT

IN THE CLAIMS

1. (CURRENTLY AMENDED) A transcritical refrigeration system comprising:

a compression device to compress a refrigerant to a high pressure;

a heat rejecting heat exchanger for cooling said refrigerant;

an expansion device for reducing said refrigerant to a low pressure;

a heat accepting heat exchanger for evaporating said refrigerant, and an airflow exchanges heat with said refrigerant in said heat accepting heat exchanger;

a variable speed device that moves said airflow ~~through said heat accepting heat exchanger~~ at a variable airflow speed, and said variable speed device moves at a device speed;

a drive that controls said device speed of said variable speed device; and

a temperature sensor that senses a temperature of said airflow ~~entering said heat accepting heat exchanger~~, and said drive adjusts said variable speed device and said variable airflow speed of said airflow based on said temperature of said airflow ~~entering said heat accepting heat exchanger~~, wherein said airflow is outdoor air.

2. (ORIGINAL) The system as recited in claim 1 wherein said refrigerant is carbon dioxide.

3. (ORIGINAL) The system as recited in claim 1 wherein said variable speed device is a fan.

4-5. (CANCELLED)

6. (CURRENTLY AMENDED) A transcritical refrigeration system comprising:

a compression device to compress a refrigerant to a high pressure;

a heat rejecting heat exchanger for cooling said refrigerant;

an expansion device for reducing said refrigerant to a low pressure;

a heat accepting heat exchanger for evaporating said refrigerant, and an airflow exchanges heat with said refrigerant in said heat accepting heat exchanger;

a variable speed device that moves said airflow at a variable airflow speed, and said variable speed device moves at a device speed;

a drive that controls said device speed of said variable speed device; and

a temperature sensor that senses an airflow temperature of said airflow, and said drive adjusts said variable speed device and said variable airflow speed of said airflow based on said temperature of said airflow,~~The system as recited in claim 1~~ wherein said drive decreases said device speed of said variable speed device to decrease said variable airflow speed of said airflow when said temperature sensor detects that said airflow temperature is above a threshold temperature.

7. (ORIGINAL) The system as recited in claim 6 wherein said threshold temperature is 80°F.

8. (PREVIOUSLY PRESENTED) The system as recited in claim 1 wherein said variable speed device is deactivated prior to activating said compression device when said temperature sensor detects that said airflow temperature is above a threshold temperature.

9. (ORIGINAL) The system as recited in claim 8 wherein said threshold temperature is 100°F

10. (CURRENTLY AMENDED) The system as recited in claim 8 further including a pressure sensor that senses a pressure of said refrigerant at a suction of said compression device ~~and~~, wherein said variable speed device is activated when said pressure sensor senses that said pressure of said refrigerant at said suction of said compression device exceeds a threshold pressure.

11. (PREVIOUSLY PRESENTED) The system as recited in claim 1 wherein said drive decrease said device speed of said variable speed device to decrease said variable airflow speed of said airflow when said temperature sensor detects that said airflow temperature is below a threshold temperature.

12. (ORIGINAL) The system as recited in claim 11 wherein said threshold temperature is 20°F.

13. (CURRENTLY AMENDED) The system as recited in claim 1 wherein ~~varying~~ said device speed of said variable speed devices ~~optimizes~~is varied to optimize a system performance.

14-24. (CANCELLED)

25. (CURRENTLY AMENDED) A method of regulating a coefficient of performance of a transcritical refrigeration system comprising the steps of:

compressing a refrigerant to a high pressure;

cooling the refrigerant;

expanding the refrigerant to a low pressure;

~~providing an airflow having a variable airflow speed;~~

evaporating the refrigerant by exchanging heat between the refrigerant and ~~THE~~an airflow having a variable airflow speed;

sensing a temperature of the airflow; and

adjusting ~~said~~the variable airflow speed of the airflow based on the temperature of the airflow, wherein the airflow is outdoor air.

26. (PREVIOUSLY PRESENTED) The system as recited in claim 1 further including an accumulator positioned between said heat accepting heat exchanger and said compression device.

27. (CANCELLED)